

Applicants: Gloria C. Li et al.
Serial No.: 09/750,410
Filed: December 28, 2000
Page 2

Listing of Claims

1. (Currently Amended) A method for increasing the susceptibility of a cell to DNA-damaging agents, comprising introducing into the cell *in vitro* an antisense oligonucleotide that specifically hybridizes to a nucleic acid encoding a human DNA-dependent protein kinase subunit so as to prevent expression of the human DNA-dependent protein kinase subunit[[;]] wherein (a) the antisense oligonucleotide is in an amount sufficient to increase the sensitivity of the cell to heat, chemical, or radiation-induced DNA damage; ~~and wherein the human DNA-dependent protein kinase subunit is a human DNA dependent protein kinase catalytic subunit, a Ku70, or a Ku80, wherein,~~ (b) the antisense oligonucleotide is enclosed in a liposome prior to introduction into the cell and (c) the antisense oligonucleotide has the sequence of a human Ku70 cDNA in the antisense orientation or a human Ku80 cDNA in the antisense orientation.
- 2-14. (canceled)
15. (Currently Amended) An antisense oligonucleotide which has the sequence of a human Ku70 cDNA in the antisense orientation and which ~~that~~ specifically hybridizes to a nucleic acid encoding a human DNA-dependent protein kinase subunit, wherein the human DNA-dependent protein kinase subunit is Ku70, so as to prevent expression of the human DNA-dependent protein kinase subunit.

Applicants: Gloria C. Li et al.
Serial No.: 09/750,410
Filed: December 28, 2000
Page 3

16. (Previously Presented) The antisense oligonucleotide of claim 15 linked to a ribozyme.
17. (Canceled)
18. (Previously Presented) The antisense oligonucleotide of claim 15 operably linked to a regulatory element.
19. (Original) The antisense oligonucleotide of claim 18, wherein the regulatory element is an inducible promoter.
20. (Original) The antisense oligonucleotide of claim 18, wherein the regulatory element is a heat shock promoter.
21. (Original) An expression vector adapted for the expression of the antisense oligonucleotide of claim 15.
22. (Previously Presented) An expression vector adapted for the expression of the antisense oligonucleotide of claim 16.
- 23-26. (Canceled)